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RESPONSE TO A TOAST TO THE "EMINENT PHYSICIAN"*

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Tampa.

This, our annual banquet, is always a delightful occasion to me. It becomes more so as the mile-posts, marking the years, go swiftly by. It is always an occasion of goodfellowship. Whatever our differences may be in the interim, we are always of one accord at this function, a recommendation for its perpetuation, if there be no other.

This occasion always inclines me to reminiscence and my retrospect harks me back to more than a quarter of a century of varied experiences. Time has wrought many changes during this twenty-five years. As I look about me, I see only a few remaining of those I found here. One by one they have been called home to their reward. Newer and younger faces are to be seen in their stead. Their vacant chairs now seat newer men in our councils. Our ranks have been refilled with younger soldiers of health, fighting disease and death.

The science of medicine has made wonderful progress during this period. The doctor of today is marvelously more skillful and scientific than the doctor of the yesterday. But the ideals that ruled and actuated the physicians of centuries ago are as true and applicable today as then.

Let us pause to take stock. Let us not be swept away with materialism. Let us remember the "eminent physician" recognizes that science has a soul. Let us not forget, in our chemico-biological enthusiasm, the spiritual side of human life. The spiritual and the psychological have much to do with the physiological. As we treat the diseased body, let us uplift the soul.

We are in the midst of the greatest sociological upheaval the world has ever seen. Let us not fail in our duty to do our part to guide the current toward the goal of human betterment.

Sociological problems should be studied and better understood by the physician to the end that the more than one hundred and fifty thousand physicians of this great country shall wield that beneficent influence over its more than one hundred and ten millions of people that is their privilege and duty.

Our country needs our loyalty and support. Let us know its constitution and its laws and let us obey them, that our liberty, bought by the blood of our fathers, and our government founded upon their ideals, may be as enduring as time. Let not the soul of science perish. Let us be truly "physicians of eminence".

*Delivered on the occasion of the annual banquet of the Hillsborough County Medical Society at Tampa, January 5, 1926.

COMPARISON OF THE KOLMER QUANTITATIVE TEST WITH THE ROUTINE WASSERMANN

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We have been using the new Kolmer quantitative test for syphilis at the Bayside Hospital Laboratory since August, 1924, and have completed a series of 1328 tests to date.

One advantage of the Kolmer test is that it supplies the urgent need of a "standard Wassermann test" or uniform complement fixation test for syphilis. The chief points of difference between the Kolmer test and the old routine Wassermann are: first, the use of the new Kolmer antigen; second, primary incubation at 6° to 8° centigrade; third, the removal of natural anti-sheep hemolysin; and fourth, the employment of five varying amounts of patients' serum as follows: 0.1 ml. in the first tube, 0.05 in the second, 0.025 in the third, 0.005 in the fourth, 0.0025 in the fifth and 0.1 in the sixth tube, which serves as a control. The result of the Kolmer test is recorded according to the intensity of the reaction in each of the five antigen tubes, thus providing a true quantitative reaction which is so necessary in following the progress of a case of syphilis under treatment.

For example:

44443—Very strongly positive.
44321—Strongly positive.
32000—Moderately positive.
21000—Weakly positive.
00000—Negative.

For a time we checked out Kolmer tests with the routine Wassermann running the two tests side by side with the same sera. Table I shows the comparison of the two tests based on 269 cases.

Table I—*Comparison* of *Kolmer* with *Wassermann*:

Total number of cases	269	
Negative agreement	217	(80.6%)
Positive agreement	36	(13.3%)
Kolmer positive, Wass. negative	15	(5.5%)
Wassermann positive, Kolmer negative	1	

The sixteen cases which did not agree are analyzed as shown by Table II.

Table II—Analysis of 16 cases in which there was disagreement between Kolmer and Wassermann:

Case No.	*Kolmer*	*Wassermann*	*Clinical Diagnosis*
5	33300	Negative	Syphilis
11	33200	Negative	Syphilis (wife & child both positive Wassermann)
23	33310	Negative	Congenital syphilis
29	33310	Negative	Mother of Case No. 23
41	44310	Negative	Positive history
49	11000	Negative	Treated case
57	44410	Negative	Syphilis
66	32100	Negative	Treated case
74	23200	Negative	Treated case
90	44300	Negative	Positive history
114	00000	Weak Positive	Treated case
140	02100	Negative	Positive history
162	44410	Negative	Treated case
201	24420	Negative	Neuro-syphilis
244	44320	Negative	Positive history
254	22100	Negative	Positive history

In a further series of 184 cases our positive results were checked by another laboratory employing the Wassermann test. Of the 184 cases, 37 were positive by the Kolmer method. Of these 37 positive Kolmers the Wassermann was negative, doubtful, or anticomplementary in 26 and positive in only 12. An analysis of these 26 negative, doubtful or anticomplementary cases is shown in Table III.

Table III—Analysis of 26 cases which were positive by Kolmer and negative by Wassermann:

1—Treated case	9—Treated case
2—Active syphilis	10—Treated case
3—Treated case	11—Treated case
4—Treated case	12—Positive history
5—Positive history	13—Treated case
6—Syphilis	14—Positive history
7—Positive history	15—Treated case
8—Treated case	16—Positive history
17—Treated case	22—Syphilis*
18—Treated case	23—Treated case
19—Treated case	24—Neuro-syphilis
20—Treated case	25—Neuro-syphilis
21—Syphilis	26—Treated case

*Case No. 22 presented a local lesion of eleven days' duration. A dark field examination demonstrated the treponema pallidum. The Kolmer was very strongly positive, 44310.

The value of the Kolmer test as a serological guide to treatment is shown in Table IV, in which a case of syphilis is followed over a period of eight months.

Table IV—Progress of Case of Syphilis Under Treatment:

Date 1925	*Kolmer*	*Wassermann** (3+)	*Wassermann**	*Symptoms*
Feb. 7	44432	Weak Positive	Negative	None
Mar. 7	44310	Negative	Negative	None
July 4	43100	Negative	Negative	None
Sept. 25	Not done	Negative	Negative	None
Oct. 3	32100	Negative	Negative	None

*Wassermann tests done by two different laboratories.

This table not only shows the superiority of the Kolmer quantitative test in the diagnosis of latent syphilis, but also the superiority of the Kolmer quantitative test over the Kolmer qualitative test. With the latter test, which is conducted with one amount of patients' serum only (0.1 ml.), this case would have remained 4-plus, and apparently unimproved, until October, eight months after the beginning of treatment; but by observing the reaction in tubes four and five a marked improvement is noted within thirty days.

As shown in Table II, some cases of syphilis (Nos. 74, 140 and 201) show a weaker reaction in the first tube than in the second. In explanation of this phenomenon, I will quote directly from Dr. Kolmer: "With about 1/2% of sera the first dose of 0.1 ml. may yield a weaker reaction than the smaller amounts, as 0.05 and 0.025 ml.; indeed, with weakly positive sera, the 0.1 ml. amount may yield a falsely negative reaction, whereas true positive reactions occur with the 0.05 ml. amount. As previously stated, Detweiler has noticed this phenomenon in his quantitative tests and believes that it is due to the influence of natural antisheep hemolysin, but I have observed the reaction with hemolysin free sera and have never seen it with spinal fluids containing some hemolysin. In my opinion it is due to interference of complement fixation by some other serum constituent. Whatever may be the true explanation, the fact remains that it occurs, and constitutes the main reason for using varying

amounts of patients' serum in conducting the syphilis complement fixation test."

Dr. Kolmer's opinion is no doubt correct since we still observe this atypical reaction occasionally, altho we have for the past six months been removing the natural antisheep hemolysin from all sera preliminary to the test.

PERIODONTIA*

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Periodontia may be defined as that branch of dental practice which has for its purpose the care and preservation in health of the supporting tissues of the teeth. It naturally follows that if this definition is correct, periodontia is the cornerstone of dentistry. Remove it and the whole structure of dentistry fails, for unless there is preservation of these tissues, all dental operations in their very nature are temporary, just as the care bestowed on the structure of a building is temporary if the foundation of the building be neglected.

Because these things are true, it should be the first concern of dentistry to prevent or recognize early the manifestations of disease in these tissues to the end that the teeth be preserved in health. It is evident therefore that periodontia is logically not a specialty of dentistry, but a part of dentistry that should be clearly understood by the general practitioner. We have no line clearly separating it as we do in other branches of dentistry. Moreover, another consideration is, that we are face to face with the fact that there is an universal need of more periodontia, and this immediately obligates the general practitioner to qualify himself that he may not only treat the case in hand, but that he may render service to the coming generations through preventive channels.

As to the mouth that has suffered no loss of tooth structure and possesses all normalities, we are under a great responsibility to this patient. Prevention should be our watchword, and these are the cases where we should spend enough time to thoroughly instruct the patient in the use of good old friend toothbrush. I am thoroughly convinced that a normal mouth of a healthy individual will remain healthy so long as that individual produces necessary stimulation to the soft tissues and the teeth are kept clean.

I am going to define etiology as far as understood, and treatment for the most common types of periodontal diseases. The first three types mentioned below have very little if any effect on general health, therefore, they will only be entered into briefly. The fourth type is the one of greatest concern to the physician, due to the fact that pus is always present, therefore we will go into it at some length.

First type, ulatrophia: is a wasting or diminution in the size of the gingival tissues. Of this type there are four sub types, Ischemic, Calcic, Afunctional, and Traumatic. Ischemic is non-inflammatory and is a true atrophy. It is a diminution in the size of the gingival tissues without recession. Deficiency in blood supply brings about this condition; however, the elements of the blood may be normal. Massaging of the tissues is the treatment for this type.

Calcic presents nearly a true type of atrophy with but little inflammation. The cause, being the formation of salivary calculus in neglected mouths. Removal of the calculus and proper use of the toothbrush constitutes the treatment for this type.

Afunctional is characterized by a slight thickness and increased redness in the marginal gingiva. The fundamental characteristic of this type is subnormal tissue tone due to lack of function. If the teeth are caused to function properly, the gingiva will usually return to normal.

Traumatic: In this type we have a dissolution of the alveolar crest without inflammation. Traumatic occlusion is the cause and its correction constitutes the treatment for this type.

The second type of periodontal diseases is chronic gingivitis. This is possibly the most prevalent of all types. It is defined as an inflammation of the marginal and cemental gingiva. There may be bleeding upon slight injury and tenderness to touch. Redness is usually present. Its etiology is bacterial invasion following mechanical irritation. Removal of the irritations such as traumatic occlusion concretions, restorative impingements, etc., will allow the tissues to return to normal.

The third type of periodontal disease is alveoloclasia, and is defined as the absorption of the alveolar crest and inner wall of the alveolus. There is but one cardinal symptom of this type, mobility of the tooth. No pus is present, no color changes and no particular tenderness of the tooth. The cause is afunctional or traumatic

*Read before the Staff Meeting of the Duval County Hospital Sept. 15, 1925.

occlusion. Correction of the causative factors and the tooth will usually return to normal.

The fourth and most pronounced type of chronic periodontal diseases is periodontaclosia or pyorrhea. It is defined as that type of periodontal disease characterized by a solution in continuity of the pericementum and absorption of alveolar bone without loss of the original overlying tissues. The cardinal feature of this type is the formation of the so-called pus pocket.

Generally speaking the presence of pus in the periodontal tissues is less harmful to the system than the presence of pus at the apices of the teeth. The reason lies in the usual free drainage provided for by the lesion through the agency of the gingival crevice. The fact of this exudation usually indicates minimum absorption into the circulation.

Relatively speaking, pus taken into the stomach is less harmful than if taken up by the circulation. Its continued presence, however, is not to be tolerated and whenever present in the slightest, should be considered from a standpoint of fecal infection.

As to the effect of periodontoclosia on general health surely we have been able to see its relationship. Hartzell has pointed out that if each of the thirty-two alveola and thirty interdental spaces were affected to a depth of one-fourth inch, this involvement would be equivalent to an ulcerating surface of seven and one-fourth square inches. Certainly if such ulceration occurred elsewhere on the body surface, treatment would be urged. One-fourth inch necessarily would mean the presence of considerable periodontoclosia, but a much less depth could be present and yet considerable space would be involved. This illustration alone shows what we may expect from a standpoint of involved tissue.

The exact cause of periodontoclosia thus far remains unidentified, although a great many efforts have been made to determine it specifically. It is the opinion of most authorities that no single factor produces the disease; on the other hand it is a combination of factors. In one case it may be due to the presence of a certain factor, in another case another factor and in still another it may be due to the presence of two or more factors.

Of these factors, mechanical irritation is possibly the one that produces the most harm. This irritation may come through incorrect type of restorations, traumatic occlusion, surface abnormalities and restorative impingements.

The type, nature and application of the restoration certainly plays a great part in producing periodontoclosia. When we realize that every restoration placed in the mouth is either for the preservation of health or promotion of disease, it at once fixes the responsibility as to the kind of restoration for a given case. When a dentist uses his favorite restoration in as many cases as possible just because he has become mechanically skilled in constructing this particular restoration and neglects a careful study of the underlying tissues, he has lost sight of prevention. The first and foremost thought that should come to the dentist's mind, is what kind of restoration will give the patient the greatest amount of service and at the same time preserve the health of the underlying tissues.

The gold shell crown and amalgam filling still have their place in dentistry, however, very limited. Cast gold and baked porcelain restorations are fast taking their places in the hands of skilled operators. Not only are these restorations better from a standpoint of lessening gingival irritation, but the normal anatomy of the tooth can better be reproduced in the materials. Tooth anatomy has much to do with the health of the surrounding or investing tissues.

Careless or incorrect mouth toilet occupies a most important place. It has been said that at some time in the history of all cases of advanced periodontoclosia the mouth toilet has been neglected. The presence of bacterial colonies about the teeth are to be considered in certain cases as a primary factor and always a contributing factor.

The treatment for periodontoclosia constitutes the removal of the cause or causes. Careful instructions to the patient as to the care of the mouth is most important. If proper diagnosis has been made and treatment instituted correctly with consideration to the general health, the success or failure of the case depends on the carrying out of instructions as to the care of the mouth by the patient.

A NOTE ON THE TREATMENT OF A SPASTIC COLON

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The colon encountered in the vagotonic type of patient is most easily diagnosed by the X-ray examination following an ingested barium meal.

or a rectal barium enema. This condition is characterized by segmental zones of filling defects which may be proven in a certain percentage of cases by a therapeutic means to be due to spasm. The differential diagnosis lies between the spastic and atonic colons.

During the past two years there has been gradually evolved a routine which has given excellent results in the medical treatment of the spastic types. Routinely, these patients are carefully gone over, and the different focal points of infection eliminated. They are subjected to daily diathermia, sedative in character, together with atropine and bitter cascara sagrada. The atropine is prepared in a four-ounce mixture of lactated pepsin containing 1/400 grain of atropine per dram, the patient taking a dram t.i.d. The exact doses of cascara necessary for a daily semi-solid stool is established, but after a few days this dose is gradually lessened by one drop per day until it is entirely done away with. The only point made in diet is that the food intake be sufficient in roughage.

In the condition of true spastic constipation, failure to get a satisfactory result by following out this method is very uncommon. The time necessary before the treatment may be entirely discontinued depends upon the individual case. One of the most satisfactory results came in a patient who apparently had the most difficult outlook: a male, age 78, who gave a history of having taken various cathartic pills daily for at least fifteen years. He did not take them by count, but by the handful. When he presented himself, his chief complaint was recurring colicky pain in the left lower quadrant of the abdomen. This pain varied in severity, with a history of frequent attacks over a period of years. A barium meal in the sigmoid area gave a string-like shadow of the colon; a barium enema gave the same result. He was subjected to the above outlined treatment for two weeks. At the end of this period his X-ray examination was very satisfactory. The sigmoid was free from spasm and there were eighteen distinct diverticulæ of the sigmoid clearly outlined. Occasionally he has had to renew his treatment for a week or ten days, but for the better part of the past year his bowel has acted daily without any other medication and he has been free from pain.

While there is nothing new in each of the three agents involved in this treatment, it is possible that their sinergistic action deserved mention.

SOME OBSERVATIONS AND CONCLUSIONS BASED UPON FIVE THOUSAND NON-SURGICAL DRAINAGES OF THE BILIARY TRACT

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After a clinical experience, embracing the above mentioned number of non-surgical drainages of the biliary tract, certain conclusions—perhaps convictions—have been reached, which the writer will attempt to briefly summarize.

First: No physician can expect to obtain a high percentage of good results, which should last for several months or several years, unless he is completely "sold" on the value of this procedure in proper conditions, and is willing to infuse into his efforts a thoroughness and sincerity. A careless or indifferent technic, a mental attitude that would "dam it with faint praise", or its use in certain states, to be later mentioned, will result in disappointment to the patients, perhaps discouragement to the physician.

Second: Chronic cholecystitis or choledochitis, generally indicated by flatulence, digestic distress, a "muddy skin", lack of appetite, perhaps a history of malaria or influenza—such a syndrome, known under the rather loose term of "biliousness", which is used for the lack of a better word, offers a promising field for non-surgical drainage. Many of these patients have associated troubles, as chronic appendicitis, gastric or duodenal ulcer, pericholecystitic adhesions, etc., which gall-tract drainage cannot cure; but that part of the pathologic picture depending upon an infected gall-bladder or ducts, generally yields promptly to this treatment.

Third: Biliary stasis, with chronic infection of the gall-bladder following malaria, typhoid, constipation or some focal infections may properly receive this treatment.

Fourth: Sick headache cases are either greatly benefited or practically relieved by this method, though in migraine of long standing, quite a number of drainages will probably be required, and the course of treatment may need to extend over a considerable period of time. As many cases of chronic migraine have, to a greater or lesser extent, caused semi-invalidism for years, the sufferer is generally willing to faithfully follow out this procedure, for often it offers the best chance of relief.

Fifth: Some forms of asthma, where the sen-

sitization tests have not worked out satisfactorily, and where it seems probable that the underlying cause of this asthma abides in an infected gall-bladder, will give remarkably good results from biliary drainage. Many asthmatics are nearly desperate, and it can do no harm to try this, though a certain percentage will yield no results.

Sixth: As an adjunct to other therapeutic measures, it is worth while in infectious joint troubles, though quite a number of drainages may be found necessary.

Seventh: In chronic catarrhal jaundice, where there is no material obstruction. such as a stone in the common duct, or a hydrops interfering, this method will frequently yield brilliant results. Occasionally, a colic will follow, and in a few instances, the ejection of small gall-stones has been accomplished. In one instance, the ejection of a large gall-stone followed a biliary drainage. This was duly reported and published in the Journal of the A. M. A.

Eighth: Patients with gall-stones can be made much more comfortable by these drainages, whether or not the gall-stones are later removed by surgery. Even after gall-stones are removed, it will be found helpful to have several drainages a few months after the operation. The writer has had a number of such cases in which biliary drainages were administered, pre- and post-operatively, and in every instance they seemed appreciative of the comfort derived.

Ninth: The writer believes that this method would be in order as a pre-operative measure in nearly all of the operations upon the gall-tract, though he has been unable, so far, to obtain much cooperation along this line from the surgeons.

Tenth: There are many patients who have had surgical gall-tract drainage, or have had the gall-bladder removed without permanent relief. Such patients may generally expect a liberal measure of relief from non-surgical drainage; and some, under the writer's observation, seem to have attained perfect health, where surgery had proved unavailing.

Eleventh: In a certain proportion of gall-tract disease, surgery may be indicated, but for various reasons, may be inadvisable or inexpedient. Many of these cases can obtain amelioration of disagreeable or painful symptoms, with no risk. The writer has had under his care a number of aged individuals who were unable to withstand surgery, and in nearly every instance, gall-tract drainage has proved itself worth while.

The assumption that this method will remove gall-stones, will break up adhesions, will cure appendicitis or cancer of the liver, or remove deep-seated organic pathology of the gall-tract, is unwarranted, and the patients should be so informed. In a number of cases, the writer has been placed in an embarrassing position by having referred to him, by enthusiastic believers in this procedure, unsuitable cases, which non-surgical drainage could not hope to benefit.

Furthermore, in the opinion of the writer, no physician should employ this method unless he enters into it whole-heartedly, performing it in a technically correct manner, and is willing to persevere in his efforts, regardless of either active opposition, or lack of approbation from many of his confreres, whose good opinion he desires.

While neither the principle nor practice of non-surgical drainage is as yet universally accepted, there is, nevertheless, a growing number of conscientious physicians, who are properly employing it, and obtaining satisfactory results.

In conclusion, the writer is convinced that this procedure will enjoy a wider and wider acceptance as its merits become better known, and its limitations better understood, and that it will eventually reach a proper and honorable place as a recognized therapeutic procedure.

FIFTY-THIRD ANNUAL MEETING OF
THE FLORIDA MEDICAL ASSOCIATION
WILL BE HELD AT
GAINESVILLE, May 3rd, 4th and 5th.

PUBLIC HEALTH LABORATORY EXAMINATIONS AND THEIR LIMITATIONS*

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The rapid increase in scientific knowledge during the past twenty-five years and the refinement in technique, which makes it practical to perform routinely and in large numbers many tests that previously were only possible in the larger scientific centers in the United States, has greatly increased the scope of Public Health Laboratory work. The function of the Public Health Laboratory is a dual one: it must be in a position to provide the health authorities with comparative statistical data from which the efficiency of various epidemiological procedures can be checked, and it must exercise its diagnostic function for the use of the practicing physician, who should, however, use this privilege only for the detection, or rather, aid in detection of acute infectious diseases or other morbid conditions, the spread of which can be controlled by preventive measures.

Bearing in mind the usual routine procedures carried out in board of health laboratories, we shall proceed with the discussion of the various problems with which the executive must contend. He must keep before him the fact that the laboratory is a public institution and must be prepared to give prompt and efficient service at all times, regardless of any emergency which may arise. This needs no discussion here, as it is purely an internal problem which is overcome by a properly balanced personnel, both office and technical, working under a system of receiving and recording adequate to the particular needs, but elastic enough to cope with emergencies.

The three sources of most of our difficulties are: (1) improper collection of material for examination; (2) failure to give proper data and (3) failure properly to interpret the results.

The laboratory should not be expected to secure results from material unfit for examination. If the condition of the patient is such that a laboratory examination is deemed necessary, it is certainly worth the effort required to submit a proper specimen with sufficient data. Neither should the laboratory be called upon for the final decision, but the result, as received by the physician, should be considered only in the light of an additional symptom and checked carefully with the other clinical findings. The laity and, we are sorry to say, in many instances the profession, are prone to regard a laboratory as a place to obtain definite decisions, positive or negative. For this reason we have to as large an extent as possible dropped these terms in reporting. A consideration of the various examinations undertaken in board of health laboratories will tend to impress these important facts.

*The subject matter of this paper was read before the Southern Medical Association in 1922 and published in the Southern Medical Journal in 1923.

WASSERMANN REACTIONS

Very little of our former difficulties, in respect to the manner in which samples are received, remain. Certain points, however, are worthy of note. The familiar Keidel tube solves all the difficulties, but its distribution by boards of health is prohibited by its cost. We use a sterile, cork-stoppered test tube in our outfit and send the following directions:

"About 5 c.c. of blood or spinal fluid should be collected in a sterile or dry, chemically clean container. If a syringe is used it should be rinsed in sterile physiological salt solution. Do not use water to rinse syringe or tubes."

In the interpretation of the results we still experience considerable difficulty and are called upon, not infrequently, to state definitely whether the patient has or has not syphilis. In Public Health Laboratories, where we necessarily do not come in contact with the clinical aspect of the case, it is unjust to expect us to pronounce this sentence. The reaction is not biologically specific, but is dependent upon certain substances found in the blood in syphilis and occasionally in other infections. We cannot, therefore, do more than report the actual result of the test to the physician. Nevertheless, the laboratory should give as much information as possible.

Beginning with November 1st, 1925, we have instituted Kolmer's standardized method, a primary ice box fixation using only one antigen. Kolmer's antigen is a specially prepared cholesterolized and lecithinized alcoholic extract of the powdered muscle of several hearts, and in his hands and others has been proven to yield more specific results, being highly antigenic and having very low anticomplementary properties. Our reasons for changing to this method are:

(1) That from the evidence at hand this test has proven to yield less false positive and more accurate results from a specific standpoint.

(2) That the technique is such that it lends itself more readily to the routine of the public health laboratory.

THE DIAGNOSIS OF TYPHOID, PARA-TYPHOID FEVERS AND DYSENTERY

With the wise use of typhoid and para-typhoid vaccine the positive value of the Widal reaction has been greatly reduced, as it is certain that in a great many instances agglutinable substances are formed in reaction to it. The usual method of submitting blood for this test is to allow several drops to dry on a slide. In the laboratory, to obtain dilutions, physiological salt solution is added, but not knowing the original volume of the blood the dilutions used are only approximate. Performed in this manner just what can the laboratory conclude? Very little, as we are hampered by an ignorance of the clinical aspect of the case. By far the better method of submitting samples for a Widal reaction is to obtain in the same manner and a like quantity as for the Wassermann test. With sufficient serum at our disposal we can make accurate serial dilutions and titrate the amount of agglutinable substances present. It is reasonable to suppose, in an actual infection with either the typhoid bacillus or one of the para organisms, that the agglutinins will show a much higher titre than following vaccination. In fact, Strauss of Richmond, Virginia, has found that the titre following vaccination rarely exceeds 1-50, and false agglutination is eliminated at 1-100. It must be remembered, however, that it is possible for a person to have a typhoid infection without being able to demonstrate agglutinins in the blood at any time. The Widal reaction is not a test for typhoid fever, but is used to determine the presence or absence of typhoid agglutinins from which certain conclusions can be drawn.

Bearing these facts in mind, it is readily seen that the laboratory, by limiting its work on typhoid to the Widal reaction, is not doing its full duty. Cultures of the blood, urine, and feces should be instituted. To introduce blood cultures in typhoid diagnosis as a routine procedure would necessitate the authority of selection of cases by the laboratory director, as the immense amount of technical work required could not be applied indiscriminately. A suitable container for general use consists of a small cork-stoppered bottle containing sterile bile, or bile brilliant green media to which is added about one-half its volume of blood. The inhibiting action of bile and brilliant green on certain organisms, with the fact that it is a favorable medium for the growth of typhoid bacilli, makes this method practical. The chances of obtaining positive blood cultures diminish rapidly after the seventh day, and this fact should be borne in mind in interpretation of results. Urine and feces cultures should be taken not only as an aid to diagnosis, but to determine the carrier state. These may be taken in bile brilliant green medium.

For the diagnosis of dysentery, feces cultures are necessary, but the laboratory should insist on specimens of blood to be examined for agglutinins. Especially is this true in field work on outbreaks of diarrhea when laboratory facilities are poor.

BRILL'S FEVER OR TYPHUS FEVER

Occasional sporadic cases of this disease occur in this country. It is therefore well to bear in mind that the laboratory can aid in diagnosis of suspicious cases by performing a Weil-Felix reaction. This is a macroscopic agglutination test carried out with proteus bacilli and the patient's serum. The same quantity of blood as is used for the Wassermann reaction is necessary.

THE DIAGNOSIS OF MALARIA

The examination of films for malaria plasmodia requires a satisfactory specimen. It should be taken before the administration of quinin and the time before or after the chill should be stated. Probably more unsatisfactory specimens for malarial examination reach us than any other variety, yet it is a comparatively simple matter to place a drop or two of blood at the end of a slide and with the edge of another make a thin, even film, which is easily stained and gives us a proper field in which we can study not only the character and proportion of erythrocytes and leucocytes, but also discover the presence or absence of malaria plasmodia. The failure to demonstrate plasmodia does not mean that the patient is not suffering from the disease. This is one of the tests which has a positive value, but very little negative value.

SPINAL FLUID

In general, what applies to the Wassermann reaction in blood work applies here. All cases

of syphilis involving the central nervous system do not give a blood Wassermann. They may only show a reaction in the spinal fluid, which explains the importance of spinal fluid Wassermann tests.

Cell counting is a very valuable procedure, but it must be remembered that unless they are counted within a very short time after withdrawal, autolysis occurs, and also that a cell count on spinal fluid contaminated with blood is without value.

Results on tests for globulin must be interpreted by the clinician.

Cultures and direct bacterioscopic examinations for the detection of organisms causing meningitis are of great value both from a clinical and public health viewpoint, particularly in the diagnosis of meningitis caused by the diplococcus intracellularis meningitidis, from a clinical standpoint because specific serum can be administered, and from a public health standpoint because the disease being of carrier nature can be readily controlled. Further, the bacterioscopic and cultural examinations of all cases of meningitis will lead to a definite diagnosis, and if the health authorities are not involved, at least their laboratory has proven that further investigation on their part is not necessary.

TUBERCLE BACILLI

The proper collection of samples should certainly not be difficult, but after a number of years' laboratory experience we are forced to state that, considering the serious nature of tuberculosis, physicians, nurses and laymen alike do not seem fully to appreciate the dangers in handling tuberculous sputum. It is really amazing to see in how many weird manners sputum can be submitted to the laboratory for examination. We have gotten it in handkerchiefs, in envelopes, on scraps of paper, in milk bottles, in coca-cola bottles, vaseline bottles, ointment jars, opened or closed, partially filled, leaking, filled to overflowing, and so on ad infinitum.

We would urge a more careful handling, not only from our own standpoint, but also for the protection of the physician and his other patients. When the least is said, and leaving out the danger of actual contact with known tuberculous sputum, it is decidedly unpleasant to have to come in contact with sputum of any kind.

The bacterioscopic examination of sputum is another test which has only a positive value, as our failure to find tubercle bacilli does not mean that the patient is not tuberculous.

GONOCOCCI

In obtaining a specimen from an acute case of specific urethritis in the male there is scarcely anything to be said, but in examining the smears from the female genitalia we have an entirely different problem to face. A vaginal smear for diagnosis is practically worthless, with the possible exception of the not infrequent cases of specific vaginitis occurring in infancy and early childhood. Smears should therefore be taken directly from the urethra, the os cervici, and the orifices of Bartholin's glands.

This test, therefore, has only a positive value, and in as much as in the bacterioscopic examinations we depend only on the morphological and staining characteristics of gonococcus, our reports are worded intracellular diplococci resembling gonococci found or not found, as the case may be.

The technic of cultural isolation of the gonococcus is such that it is impractical to introduce it as a routine measure in public health laboratories.

The affinity of the gonococcus for the conjunctiva makes it imperative to examine very carefully all cases of suppurative conjunctivitis.

DIPHTHERIA

A public health laboratory plays a rather important role in this disease. Not only are we called upon to make diagnosis of actual cases, but also to determine the presence of carriers among the contacts of known cases that steps may be taken to prevent widespread epidemics. It must be remembered that while it is permissible for the laboratory to state that a culture is either positive or negative, this report must not be taken to mean that the patient has or has not diphtheria.

Tests for the virulency of diphtheria bacilli are of great value in releasing from quarantine chronic carriers whose throats and nasopharynges persistently show positive cultures despite vigorous treatment, including at times tonsillectomy.

RABIES

This disease, if contracted, is, as far as we know, always fatal. In view of this fact the examination of animal heads submitted assumes tremendous importance, especially in our state,

where the incidence of rabies is high among animals.

We feel that we have more difficulty in handling this question satisfactorily than in any of our other procedures. So much superstition surrounds this subject not only in the minds of the laity, but among the profession. The status of diagnosis is this: that if Negri bodies are found in fresh brains the animal is rapid. If suspicious bodies are found in fresh brains it must be considered rabid, and if suspicious bodies are found in partly decomposed brains it should be considered rabid. This seems easy enough and it certainly settles the question from a positive standpoint.

Unfortunately, the usual thing done in cases where people are bitten by animals is to kill the animal immediately and submit its head for diagnosis. Our opinion is the examination of the brain in such cases is a useless waste of time, but here we face this difficulty: that an animal showing definite symptoms of rabies and killed immediately will usually show Negri bodies. We realize also that at times it is not possible to catch an animal and pen it up. Nevertheless, in going over the history of animals whose heads have been submitted for examination, we find that a large number are killed which show absolutely no symptoms of rabies. What are we going to tell the patients when our examination fails to reveal any evidence of rabies? Just this: that if the animal died it was probably not rabid, but if it was killed we cannot give any opinion whatever or any advice from the laboratory evidence alone as to whether the patient needs the Pasteur treatment or not. In instances of this kind a careful investigation into the actions of the animal before death is essential before advice can be given.

The proper procedure in cases of animal bites is to quarantine the animal for a period of 10 days. While it is advisable to begin treatment at the earliest possible moment, it is probably safe to expect that if treatment is begun within ten days it will be effective.

FECES

The collection of specimens of feces to be examined for ova or parasites is very simple, but certain features are worthy of mention.

(1) It is not necessary to procure a large sample, and unless the patients are definitely instructed in this respect, they will frequently bring in enormous quantities.

(2) Formed stools are to be preferred for the following reasons: they are usually less malodorous than fluid stools, gas does not form so readily and blow out the stoppers from the containers.

The inability to find ova or parasites in one specimen does not preclude the possibility of infestation of the intestinal tract with parasites.

The examination of feces for endamœba histolytica is only possible with absolutely fresh specimens. It is advisable to send the patient to the laboratory. If this is not possible the sample should be kept at body temperature until examined.

DAIRY PRODUCTS

This is a problem which confronts only the health officer, and all that need be said is that chemical tests are so much more definite than the various bacteriological procedures that the results obtained can be judged by the experience of the chemist performing them. As to the proper collection of samples for bacteriological examination little need be said. If the products are delivered in bottles, unopened bottles should be obtained. If the samples must be taken from a large can, the contents should be thoroughly mixed by means of a sterile stirrer, and at least 10 c.c. should be taken by means of a sterile pipette into a sterile container.

WATER

Board of health laboratories are called upon to make chemical analyses of water from a sanitary standpoint. The minimum quantity needed for this analysis is 2 litres. The result of a sanitary chemical analysis of water must be interpreted only in the light of additional knowledge gained by a field survey of the water shed or local conditions, and a knowledge of the character of waters from that locality.

In the collection of samples of water for bacteriological examination, 100 c.c. is sufficient for the ordinary routine official plate count. Samples for bacteriological examination should be taken in sterile, glass-stoppered containers of the proper capacity, supplied by the laboratory doing the test.

The following rules obtain for the length of time which may be allowed to elapse after taking the sample and the beginning of its analysis:

Chemical analysis:

Ground water	72 hours
Fairly pure surface water	48 "
Polluted surface water	12 "
Sewage effluents	6 "
Raw sewages	6 "

Bacteriological examination:

Samples kept at less than 10° C...	24 "

CONCLUSIONS

In conclusion, let me state a few broad principles which will prove of value to the physician, health officer and laboratory alike:

(1) Submit properly obtained samples.

(2) Give as much data as possible.

(3) Bear in mind that a great many tests have only a positive value.

(4) Interpret laboratory results only in the light of other clinical findings.

SMALLPOX

B. L. ARMS, M.D.,

State Health Officer

The physicians of Florida can do a great work for the state as well as their own community if they will strongly urge everyone of their patients to be vaccinated.

Smallpox has appeared in all parts of the State, nor is it confined to this State. Several of the other States having more cases than Florida.

There is no reason why we need have smallpox and if we all pull together and get the citizens of the State vaccinated we will not have it.

We are making good headway now, but we need the cooperation of every physician in the State, not only doing vaccinations but preaching vaccination.

517 cases were reported December 1, 1925—February 6, 1926, and over 150,000 vaccinations have been performed.

Any physician can obtain vaccine virus by applying to the nearest State Laboratory, but any large request should be made direct to the Laboratory at Jacksonville, which is the main distributing point. VACCINE VIRUS IS NOT SENT TO THE ANTITOXIN STATIONS BUT MUST BE ORDERED DIRECT BY THE PHYSICIAN DESIRING IT.

In requesting virus please state amount desired, for we cannot tell how much is wanted when we get a request for a "supply" or "some vaccine".

Vaccine virus should be properly kept or it will lose its potency, hence you should not order more than is needed, and when received it should be kept in a refrigerator until you wish to use it.

Vaccination is the only means of stopping the spread of smallpox, and I am sure every physician in the State is vitally interested in stamping out the disease.

Please report cases promptly, for we must know every focus in order to do our most effective work, and the earlier we learn of a focus the more prompt the action that can be taken.

It is much better to take steps to avoid cases than to wait until cases have appeared, hence every community should put on an intensive vaccination campaign.

Our medical men are doing all in their power to limit the spread but need the assistance of each physician in the State to help, and in helping the State they also help their own community and their own patients.

Following is a summary:

CASES OF SMALLPOX REPORTED DECEMBER 1, 1925, TO FEBRUARY 6, 1926, INCLUSIVE, BY COUNTIES AND CERTAIN CITIES

Location	*December*	*January*	*Feb. 6th*	*Total*
State	65	322	130	517
Alachua		2		2
Bay		1		1
Brevard		10		10
Broward Ex.			2	2
Ft. Lauderdale		1	3	4
Citrus			1	1
Columbia		14		14
Dade Ex.		2	2	4
Miami	25	82	38	145
Duval Ex.			4	4
Jacksonville	13	35	29	77
Escambia Ex.	1	4		5
Pensacola	1	1		2
Gadsden		2		2
Highlands	3		2	5
Hillsboro Ex.		10		10
Tampa	13	122	23	158
Jefferson		1		1
Leon	1	2		3
Levy		1	1	2
Manatee	1	2	1	4
Marion		5		5
Orange Ex.	1	7		8
Orlando				
Palm Beach Ex.		3		3
West Palm Beach			20	20
Pasco		5	1	6
Pinellas Ex.	3	3	1	7
St. Petersburg			2	2
St. Johns	1			1
St. Lucie		3		3
Santa Rosa	2			2
Sarasota		1		1
Seminole		1		1
Union		1		1
Volusia		1		1

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MODERNIZING HOSPITALS

It is pleasing to note the interest in hospitals as manifested by news items appearing in the Journal pertaining to the progress of hospitals throughout Florida.

A survey of hospitals of the United States reveals that there is one hospital to each seven hundred square miles of territory. Two years ago there was only one hospital to each fourteen hundred square miles of Florida territory. It was further noted that sixty-seven per cent of the counties comprising the state of Florida were without hospital facilities.

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TWENTIETH DISTRICT—DR. WM. R. WARREN . . . *Key West*
Monroe.
TWENTY-FIRST DISTRICT—DR. H. D. CLARK . . . *Ft. Pierce*
St. Lucie, Okeechobee, Indian River, Martin.

At the present time many hospitals are being planned throughout the state.

In the principal centers the hospitals that have existed for a number of years have adopted a standardized plan of operation under the requirements as laid down by the American College of Surgeons and under conditions which grant a grading at the hands of the American Medical Association indicating that certain hospitals are qualified for the training of internes.

In several hospitals there are training schools for nurses operated under the standardized policies of the National Nurses' Association and some have been successful in gaining recognition as being in accordance with the requirements of the New York State Board of Regents for the operation of nurses' training schools. Nurses graduating from training schools that are properly standardized may practice their profession in New York state, and are qualified for nursing

FIFTY-THIRD ANNUAL MEETING, GAINESVILLE, MAY 3, 4, and 5

services in the different governmental activities, particularly the medical department of the Army and Navy.

Under the present plan of standardized hospital operation the physician to qualify for the privileges of the hospital, is required to have received a diploma from a Class A medical school, and to have served an internship of one year in a recognized hospital. With this experience doctors are qualified for the medical privileges only. If an applicant desires the extension of the surgical privileges he must have had, in addition to the above, a year's assistantship in surgery in association with a surgeon of recognized ability; a second year internship devoted to surgery is regarded as the equivalent to a year's assistantship to a surgeon of recognized ability.

In the city of Jacksonville it is noted that the new County Hospital persues its already established policy of a permanent staff organization and that St. Vincent's Hospital adopted the permanent staff idea some time ago. It is announced that St. Luke's Hospital has adopted the permanent staff plan of operation. A permanent staff organization does not indicate a self-perpetuating organization, but that the appointments, although permanent, are subject to modification by an executive committee consisting of laymen.

In contrast to the situation in the past, hospitals that are now standardized have as an underlying principle to operation a policy which guarantees the patient against incompetency and neglect. Doctors are required to demonstrate their fitness. It is no longer possible for a physician by virtue of being a doctor of medicine, to undertake the performance of grave surgical and other procedures until such time as he shall have demonstrated his fitness. The public is beginning to realize that with standardized education the ability of one doctor as compared to another is more or less equal and that the results in the treatment of human illnesses depends very largely upon the instruments which the public places in the hands of the doctors with which to work, namely, well equipped and well organized hospitals.

Florida can proclaim to the world at large that its public health activities in all directions are comparable in a most satisfactory manner with the facilities offered elsewhere.

STATE NEWS ITEMS

At a recent meeting of the Pinellas County Medical Society the following officers were elected: Dr. T. R. Griffin, president; Dr. L. A. Wylie, vice-president; Dr. H. L. Putnam, vice-president; Dr. O. O. Feaster, secretary; and Dr. E. Lustig, treasurer.

Dr. J. Knox Simpson of Jacksonville read a paper before the Southern Section meeting of the American College of Surgeons held in New Orleans last month, the title of which was "Syphilis of the Stomach," with lantern slide demonstrations.

The annual election of the Dade County Medical Society was held December 4 and the following officers were elected: Dr. R. O. Lyell, president; Dr. G. Rapp, secretary; Dr. R. C. Woodard, vice-president; Censors, Dr. W. S. Coleman (2 years), and Dr. J. A. Simmons (3 years).

Dr. H. Mason Smith of Tampa was a recent visitor in Jacksonville.

The following Florida members of the American College of Surgeons attended the Southern Section meeting held in New Orleans last month: Dr. Frederick Waas, Dr. Gerry Holden, Dr. E. H. Teeter, Dr. J. Knox Simpson and Dr. Shaler Richardson, of Jacksonville, and Dr. C. F. Sayles of Miami.

Dr. John S. McEwan, President of the Florida Medical Association, addressed the St. Lucie and Marion County Medical Societies during the past month.

February first marked the opening of the Diagnostic Laboratories in Jacksonville. The Diagnostic Laboratories are under the management of Dr. W. W. Kirk and Mr. E. W. Moore.

Dr. Kirk is Director of the Clinical Laboratory of St. Luke's Hospital and Pathologist to the Duval County Hospital, St. Vincent's Hospital and United States Veterans Bureau, Jacksonville. He was formerly Assistant Director of the Philadelphia City Board of Health Laboratory, following graduation from the University of Pennsylvania and hospital service in the Philadelphia General Hospital.

Mr. E. W. Moore was formerly Laboratorian

in charge of the United States Veterans Bureau Hospital No. 63 in Lake City, for nearly four years, and prior to that time was Chief Pharmacist's Mate, performing Laboratory duties in various Naval Hospitals in this country and abroad.

The Diagnostic Laboratories are fully equipped for all routine and special examinations pertaining to serological, bacteriological, pathological and clinical diagnosis.

Dr. M. M. Andrews, Secretary-Treasurer of the Orange County Medical Society, filed the first roster, showing members in good standing and also a check covering dues for each member.

The success of the State Medical Association depends largely on the activities and efficiency of the county societies. The Orange County Medical Society has certainly set the pace in establishing the standing of the members on its roll for 1926, and we believe their example will be followed very soon by each county society in the State of Florida. Congratulations to the Orange County Society.

The following interesting item has been forwarded to the Journal by Dr. Fred J. Walter of La Mesa, California:

Copy of a dentist's announcement appearing in the Virginia Gazette and Alexandria Advertiser, published Thursday, April 18th, 1793, a copy of which paper I have at the present time. As printed:

W. P. Greenwood, Surgeon-Dentist,

Pupil and Son to the celebrated Dentift of that name at Bofton. Refpectfully informs the Ladies and Gentlemen of this City and its vicinity, that he purpofes tarrying here a fhort time to practife in the line of his profeffion.

He will with plefure receive the commands of thofe who wifh him to perform any operation in the Art-Dental, such as cleaning the teeth, eradicating the diforders incident to the gums; extracting, tranfplanting, plumbing and regulating the teeth; alfo fixes in teeth, from a fingle tooth to a whole fet, that will vie in beauty with the moft brilliant natural ones; and if not done to the fatifaction of the patient, he requires no pay.

N. B. Mr. Greenwood may be confulted with at Mr. Mark Edgar's, Fairfax-Street, and will wait on Ladies or Gentlemen at their houfes, if moft convenient.

Alex. April 10, 1793. 194—3 w.

Note that the letter s is as f except when final.

EMORY UNIVERSITY TO RAISE $4,500,000 FOR MEDICAL EDUCATION

Medical education is to receive a total of $4,500,000 from the $10,000,000 Expansion Fund now being raised by Emory University, Atlanta. This money will be distributed as follows: Endowment for the School of Medicine, $2,000,000; endowment for the Wesley Memorial Hospital, $2,000,000; pathology laboratory and hospital administration building, $225,000; nurses' home, $200,000; completion of chemistry building, $75,000. The goal of the campaign as a whole is to provide $6,500,000 in endowment and $3,500,000 in new buildings to cover the estimated needs of all six schools of the University for the next ten years.

The Emory School of Medicine, formerly the Atlanta Medical College, has long been one of the three largest and strongest A-grade medical colleges in the South. It has a total of 3,400 alumni now practicing in all states of the union but two. Dr. Russell H. Oppenheimer is dean of the faculty of 130 men, among the part-time members of which are some of Atlanta's most eminent physicians and surgeons.

For many years the school has been handicapped both in research and teaching work because of inadequate endowment. The enrollment in each class has been limited to sixty men at a time when more physicians of Georgia alone are dying each year than the two medical colleges of the state are graduating. The school is looking to its alumni and to the other friends of medical education to give the funds so urgently needed for expansion.

ABSTRACT DEPARTMENT

ROENTGENOLOGY

Roentgen Treatment of Chronic Cough in Children. Mulford K. Fisher. The American Journal of Roentgenology and Radium Therapy, September, 1925, Page 244.

In 1903, Heinike first published the results of his experimental work on the effects of roentgen radiation on lymphoid cells and structures, proving definitely the retrogressive and destructive action induced by roentgen ray on glandular tissue. Clinical application of these classical studies furnished the basis of treatment in these cases of persistent, chronic coughs in children.

The same principle applies in the treatment of thymus disease. This treatment has grown to be one of the outstanding specifics in pediatric practice. The relief afforded, sometimes, by only one exposure, is so marked that it borders on the dramatic.

A group of cases presenting a dissimilar pathology, but clinically and etiologically very much alike, are mediastinitis and peribronchial adenitis. Holt gives a classical description of the symptomatology of inflammation of the bronchial lymph nodes. "Cough is hoarse, persistent, teasing and frequency occurs in paroysm which resembles pertusis but lacks the whoop and is not accompanied by the expectoration of a mass of tenacious mucous." This group of cases is usually amenable to roentgen treatment.

One of the real difficulties besetting the path of pediatricians is the treatment of chronic, persistent cough. It is by no means an uncommon condition and constitutes a class of cases trying the physician's skill, diagnostic acumen and patience.

Roentgenographic study of the chest presents no typical findings. Nearly all of them present a peribronchial fibrosis or some scattered bronchial or mediastinal lymph nodes which are enlarged. These are such constant findings in children's chest that slight importance should be placed upon them.

Clinically, these children resemble more closely a non-productive chronic bronchitis than any other clinical entity.

The results from roentgen therapy in this type of case have proven highly gratifying. Complete cessation of the cough is obtained in practically every instance. The treatment consists in giving a small stimulating dose of filtered radiation, weekly or at ten-day intervals. Often a cough begins to subside within 48 hours after the first treatment.

To explain the "modus operandi" of radiation in clearing up these so-called idiopathic coughs in children would be pure theorizing. Whether a thymic influence keeps up the irritation or the presence of one or more bronchial lymph glands, so situated as to cause pressure on the vagus or its branches, is problematical. In either or both instances the effects of the roentgen ray is explainable on the hypothesis of the influence of radiation on lymphoid tissue. Whatever the cause, the results have been sufficiently encouraging to warrant the continued use of roentgen radiation in this class of patients.

W. McL. S.

DERMATOLOGY.

Mycosis Fungoides. Its Relation to Leukemia and Lymphosarcoma. J. Frank Fraser, M.D., Instructor in Dermatology, Cornell University Medical School, N. Y. Abstracted from Archives of Dermatology and Syphilology. Vol. 12, No. 6.

The history and histo-pathological findings in two human cases of mycosis fungoides and a case of lymphosarcoma in a South American squirrel are described. A leukemic blood picture in the disease is rare, but cases have been reported. It is suggested on morphologic grounds that the lesions of mycosis fungoides arise from the reticulo-endothelial cells of the skin.

Summary is quoted from the article.

Two cases are added to the growing number of instances of mycosis fungoides in which the pathologic changes in the tissues are unquestionably neoplastic.

Evidence is presented which shows a genetic relation between mycosis fungoides, lymphatic leukemia and lymphosarcoma.

The name reticulum cell sarcoma is suggested to replace the term lymphosarcoma in designating the lesion of mycosis fungoides. The suggestion is based on the assumption that the lesion has its origin in the reticulum cells of the papillary layer (reticulu-endothelial system of the skin).

J. L. K. S.

OUR NATIONAL DOCTOR'S BILL THE PUBLIC'S DEBT

It has been computed by conservative physicians that 40% of their service is gratuitous either through voluntary service or through clients failing to pay the doctor's bill. Over $135,000,000 *in charity service given annually.*

A cursory survey of the gratuitous service given by physicians through medical institutions in the Greater City of New York, based upon the number of "free hospital days," aggregate $16,000,000 annually.

This figure by no means indicates the total bill that the city-controlled and private hospitals would have to pay if the doctor, like other professional men, demanded and received payment for each and every service performed.

It is based upon returns from but 107 of the 140 odd medical and surgical serving institutions giving some portion of charity service.

Evaluating the physician's service nationally upon the hypothesis that outside New York City but a pro rata service in quantity is given equal to 50%, and assuming that each "Hospital Day's" service was paid for at the rate of $3.00 per day, the nation's bill due the doctor would be more than $135,000,000 annually.

A survey made within the City of New York (by no means complete because many of the hospitals had not their figures at hand for this quick computation) shows the following:

Institutions in New York are roughly grouped into five classes:

Group one and two are the city-controlled hospitals—those operated and maintained by the City Government—and are composed of fifteen institutions, ten of which are under the management of the Department of Public Welfare; the others, known as Bellevue and Allied hospitals, include five institutions.

The third group are those supported in part by the Catholic Charities, of which there are twenty-two institutions. The fourth group is the United Hospital Fund group, which is financed annually, partly through drives, representing fifty-six institutions. The independent hospitals into which class are gathered all those institutions not included in the above four groups compose the fifth group. There are forty odd institutions in this latter group, of which number fourteen have made returns for the purposes of this survey, the other four groups being complete in their returns.

These groups show the following:

Department of Public Welfare group (10 hospitals)	1,879,871	free days
Bellevue and Allied Hospitals (5 hospitals)	859,232	" "
Total city-controlled hospitals	2,739,103	" "
Catholic group (22 hospitals)	322,610	" "
United Hospital Fund group (56 hospitals)	1,563,658	" "
Independents (14 hospitals)	395,131	" "
Total (107 hospitals)	5,020,502	" "

The total displayed above, 5,020,502 "free hospital days," represents the number of free days' service given to free charity patients in the city's hospitals in a year.

Going a step further, it is no exaggeration to say that each patient is visited at least three times in each "hospital day" by a physician who receives no compensation whatsoever.

If we compute each visit of the physician as being worth a dollar, we find that the bill would be $15,061,560 per annum.

This includes the services of the consulting and outside attending physicians and surgeons, together with the services of the internes, but it is all medical or surgical service.

In taking three dollars as the equivalent of service of the consulting, attending and interne physicians, we feel we are placing the compensation at a price so far below normal for the compensation for a similar service outside the institutions as to prevent criticism or cavil of any kind.

For, when it is considered that these include the best medical and surgical brains in the country, the most expert men in the profession, who, in some instances are known to charge fees as high as $5,000 for an operation, and others who charge as low as $25 for a consultation, and then again those who charge no more than $3 per visit to outside patients, we feel that we have been almost unfair in the computation of the doctor's bill; but we will let it stand at that figure to show the prodigious sum that annually would be due the doctor if, as I have stated before, he demanded and secured even this small measure of pay for his services in public institutions.

Now for the National Bill

As New York City represents about 1/18th of the total population of the United States, the national bill would, therefore, be eighteen times

that of the City of New York, but we will not use that figure, because it might be argued by some that the measure of service given throughout the rest of the country is not in the same proportion either in quantity or quality.

Then, there are those who may even claim that the service outside Greater New York by physicians, through similar institutions, is greater, proportionately, both as to quantity and value.

The figure arrived at here is not intended as one of discourtesy to any city or section in any of the states, it is merely taken to arrive at an evaluation of the national service of the physician —as a basis, if you please, for a more thorough evaluation of his services, and with the hope that a national census may be taken which will be thorough, complete and satisfying.

Therefore we will set down as our premise that the balance of the country gives, pro rata, a service of but 50% of that given by the City of New York. This abnormally low computation shows that the physicians' national bill would total $135,553,554.

If we place the total number of registered physicians at 165,000, nationally, and divide this into the figures above attained, we find that each and every physician in the United States should be credited with $821 gratuitous service every year.

Of course, every physician is not connected with a hospital or similar institution giving gratuitous service to the poor, and this figure is attained, therefore, by making a spread of the entire bill over the 165,000 registered physicians.

Then, again, it must be remembered that this sum does not in any sense measure the free service of which no accounting ever has been made or ever can be made—of the charity or free service that the physicians give to the poor whom they meet in their daily practice.

Just what this bill would amount to, God only knows, because the physician never keeps account of it, and if you happen to mention it to him, he will laugh it off, saying, "Oh, that's for the good of the service—for the good of mankind."

But there is another element that enters into this question of service, for which the physician never is paid, and this is the most baneful element, the unpaid bills of those who are well able financially to meet their obligations to their physician.

Every family doctor has a number of these every year upon his books, and if the facts and figures were recorded, of the money lost to the physicians in this way, it would stagger one and give to each a twinge of conscience.

And when one considers that the measure of the physician's service is intimate, personal and means relieving the individual of pain, suffering, the saving of a limb, aye, the saving of a life perhaps, this negligence takes on an aspect that is indescribable.

With this situation well in mind, can there be any question as to why so many physicians eke out meagre existences, and that many—the majority—die without estate, and that many become public charges because of financial distress?

And with the costs of living rising like the tides, is it any wonder that so many of them are engulfed and have to enter almshouses, or that those capable of it have to seek employment in other lines in order to maintain themselves decently?

The Men of Pure Science

Again, there is an aspect to the situation which presents a problem that never can or will be solved in the approach that is being made to solve problems of similar kind these days; that is the problem of the man of pure science—the man who devotes himself to the science of medicine and employs his time digging and delving in the laboratory to seek some panacea for the existent ailments of life, or who, built in more heroic mould, submits himself to the torture of disease through inoculation, that he may record the symptoms, and that his brother physicians may record the progress of disease in him, so that mankind may be benefited as the result of his sacrifices and studies.

To evaluate this service of the physician is something beyond the power of figures, or dollars or cents, because there is the jeopardy of life always, and who can say as to the value of a life given in this manner?

The next element is that of the man who through pure service to the public is stricken down, who has to leave his bed at the call of the patient at unseemly hours; who answers call after call in this manner, totally unmindful of his own physical well-being, knowing only that some one is suffering and that his duty is to relieve that suffering. When this man becomes aged, penniless and is incapacitated from going the daily round of the old family doctor, should there not be some place to which he may go; some place to which his eyes may turn in hope and solace?

And then as to the good wife, who has shared his burdens through life, and whose warnings and entreaties have fallen upon deaf ears, the only call being heard being that of service—what is to become of her? Is she to be sent to the poor-house over one hill, and he to be sent to another over the other hill, and thus these twain parted at a time of life when the affectionate companionship of years should solace their few remaining days?

Is this to be their lot?

What is to become of the vaunted ethics, the service and the pride of the medical profession if this be permitted?

To take care of one's own is a natural impulse; to take care of others is called charity, but to take care of those who sacrifice their health, their strength, their years, their service, in behalf of the public or in behalf of their profession—this calls not for charity, it is a call to duty.

Today there is reported a dearth of physicians throughout the country. There are hundreds of communities where one doctor has to serve many such.

The poor compensation, bad debts, unseemly hours, the personal hazards to health, limb and life do not compensate a physician these days as against other professions, so doctors are becoming fewer, proportionately, in the rural districts.

And this is no wonder, because, according to the American Medical Association, from figures printed some time ago, $1,000 was the average earnings of a doctor.

And, of course, it is beyond question as to a man being able to support himself, and make his daily rounds on such a basis of compensation—much less to maintain a horse and carriage or an automobile, and a family and a home thereon.

All these problems have been revolving in the minds of certain forward-looking physicians for several years, with the result that a little experiment, or adventure, was begun up in the hills of Caneadea, New York, where there was established a trial unit of a home for aged and superannuated or ailing physicians and their wives. For four years this institution has been doing its mission of mercy and love, and now the calls upon it are so heavy that it seems due the medical profession to found a home, national in scope and service; a place where tranquility will be theirs during their last few years of life.

And, as planned by these physicians, it serves a double mercy in that it does not separate the physician from his good wife and life partner at this crucial time in their existence. Provision is made for both at the home, and the fact that it has worked out successfully adds flowers to the benison.

That this national home had not been thought of before, nor had not been actually started before, is due to the diffidence of the profession in its personal affairs—it did not wish to lay bare to public scrutiny that so many within the profession are needy, or may be in actual want.

But when the facts were laid before some of our leading and far-seeing citizens the reply was instant that something must be done, and that they would sponsor the movement to raise funds for the national home.

Here are gathered a few of the words of encouragement and God-speed, which have created this enterprise, from the pens of leading citizens. this enterprise, from the pens of leading citizens.

If, after reading them, you feel that you would like to help in this great movement by your personal gift, please forward the same by check, drawn to the order of the Physicians' Home, Inc., and mail it to Dr. Albert G. Weed, Treasurer, 22nd floor, Times Building, Broadway and 42nd Street, New York City.

FIFTY-THIRD AVNUAL MEETING OF
THE FLORIDA MEDICAL ASSSOCIATION
WILL BE HELD AT
GAINESVILLE, MAY 3rd, 4th and 5th